WHAT IS CLAIMED IS:

1. A method of reducing the amount of a therapeutic substance that must be administered to a patient to achieve a therapeutic effect, said method comprising administering the substance through at least one small gauge hollow needle having an outlet with an exposed height between 0 and 1 mm, said outlet being inserted into the skin to a depth of between .3 mm and 2 mm, such that delivery of the substance occurs at a depth between .3 mm and 2 mm.

2. The method of Claim 1 wherein injecting comprises inserting the needle to a depth which delivers the substance at least about 0.3 mm below the surface to no more than about 2 mm below the surface.

3. The method of Claim 1 wherein administering comprises inserting the needle into the skin to a depth of at least about 0.3 mm and no more than about 2 mm.

4. The method of claim 1 wherein the substance is administered over a time period of not more than ten minutes.

5. The method of claim 1 wherein the substance is administered over a time period of greater than ten minutes.

6. The method of claim 1 wherein the dosage is reduced by at least 10% compared to subcutaneous injection.

7. The method of claim 6 wherein the dosage is reduced by at least 20%.

8. The method of claim 7 wherein the dosage is reduced by at least 30%.

9. The method of claim 1 wherein the substance is a peptide or protein.

10. The method of claim 1 wherein the substance is administered at a rate between 1 nL/min. and 200 mL/ min.

11. The method of claim 1 wherein said substance is a hormone.

12. The method of claim 1 wherein said substance is a nucleic acid.

13. The method of claim 1 wherein said substance is hydrophobic.

14. The method of claim 1 wherein said substance is hydrophilic.

15. The method of claim 1 wherein the needle(s) are inserted substantially perpendicularly to the skin.

16. The method of claim 1 wherein the substance is selected from the group consisting of insulin, granulocyte stimulating factor and PTH.

17. The method of claim 1 wherein the substance is a nucleic acid.

18. A method of reducing the amount of a therapeutic substance that must be administered to a patient to achieve a therapeutic effect, said method comprising comprising injecting or infusing the substance intradermally through one or more microneedles having a length and outlet suitable for selectively delivering the substance into the dermis to obtain absorption of the substance in the dermis.

19. The method of claim 18 wherein the length of the microneedle(s) is from about 0.5 mm to about 1.7 mm.

20. The method of Claim 18 wherein the microneedle is a 30 to 34 gauge needle.

21. The method of Claim 18 wherein the microneedle has an outlet of from 0 to 1 mm.

22. The method of Claim 18 wherein the microneedle is configured in a delivery device which positions the microneedle perpendicular to skin surface.

23. The method of Claim 18 wherein the microneedle needle is contained in an array of microneedles needles.

24. The method of Claim 23 wherein the array comprises 3 microneedles.

25. The method of Claim 23 wherein the array comprises 6 microneedles.

26. The method of claim 18 wherein the substance is administered over a time period of not more than ten minutes.

27. The method of claim 18 wherein the substance is administered over a time period of greater than ten minutes.

28. The method of claim 18 wherein the dosage is reduced by at least 10% compared to subcutaneous injection.

29. The method of claim 28 wherein the dosage is reduced by at least 20%.

30. The method of claim 29 wherein the dosage is reduced by at least 30%.

31. The method of claim 18 wherein the substance is a peptide or protein.

32. The method of claim 18 wherein the substance is administered at a rate between 1 nL/min. and 200 mL/ min.

33. The method of claim 18 wherein said substance is a hormone.

34. The method of claim 18 wherein said substance is a nucleic acid.

35. The method of claim 18 wherein said substance is hydrophobic.

36. The method of claim 18 wherein said substance is hydrophilic.

37. The method of claim 18 wherein the microneedle(s) are inserted substantially perpendicularly to the skin.

38. The method of claim 18 wherein the substance is selected from the group consisting of insulin, granulocyte stimulating factor and PTH.

39. The method of claim 18 wherein the substance is a nucleic acid.

40. A method of reducing the amount of a pharmaceutical substance that must be administered to achieve a therapeutic or diagnostic effect, said method comprising injecting or infusing the substance intradermally through one or more microneedles having a length and outlet suitable for selectively delivering the substance into the dermis to obtain absorption of the substance in the dermis.

41. The method of claim 40 wherein the dosage is reduced by at least 10% compared to subcutaneous injection.

42. The method of claim 41 wherein the dosage is reduced by at least 20%.

43. The method of claim 42 wherein the dosage is reduced by at least 30%.

44. The method of claim 40 wherein the length of the microneedle is from about 0.5 mm to about 1.7 mm.

45. The method of Claim 40 wherein the microneedle is a 30 to 34 gauge needle.

46. The method of Claim 40 wherein the microneedle has an outlet of from 0 to 1 mm.

47. The method of Claim 40 wherein the microneedle is configured in a delivery device which positions the microneedle perpendicular to skin surface.

48. The method of Claim 40 wherein the microneedle needle is contained in an array of microneedles needles.

49. The method of Claim 48 wherein the array comprises 3 microneedles.

50. The method of Claim 48 wherein the array comprises 6 microneedles.

51. A method for reducing the amount of a bioactive substance that must be delivered to a subject to achieve a therapeutic or diagnostic effect, said method comprising :
    a) contacting the skin of the subject with a device having a dermal-access means for accurately targeting the dermal space of the subject with an efficacious amount of the bioactive substance; and
    b) delivering said substance to the dermal space.

52. The method of claim 51 wherein the dosage is reduced by at least 10% compared to subcutaneous injection.

53. The method of claim 52 wherein the dosage is reduced by at least 20%.

54. The method of claim 53 wherein the dosage is reduced by at least 30%.

55. The method of Claim 51 wherein the device has a fluid driving means including a syringe, infusion pump, piezoelectric pump, electromotive pump, electromagnetic pump, or Belleville spring.

56. The method of Claim 51 wherein the dermal access means comprises one or more hollow microcannula having a length of from about 0.5 to about 1.7 mm- mm.

57. The method of Claim 51 wherein said dermal access means comprises one or more hollow microcannula having an outlet with an exposed height between 0 and 1 mm.

58. A method for reducing the amount of a bioactive substance that must be delivered to a subject to achieve a therapeutic or diagnostic effect comprising:
    a) contacting the skin of a subject with a device having a dermal-access means for accurately targeting the dermal space of the subject; and
    b) delivering an efficacious amount of the bioactive substance at a rate of 1nL/min. to 200 mL/min.

59. The method of claim 58 wherein the dosage is reduced by at least 10% compared to subcutaneous injection.

60. The method of claim 59 wherein the dosage is reduced by at least 20%.

61. The method of claim 60 wherein the dosage is reduced by at least 30%.

62. The method of Claim 55 wherein the dermal access means has one or more hollow microcannula that inserts into the skin of said subject to a depth of from about 0.5 to about 2.0 mm.

63. The method of Claim 55 wherein the dermal access means has one or more hollow microcannula having an outlet with an exposed height between 0 and 1 mm.

64. A method of treating a symptom of a pathological condition, said method comprising administering an effective amount of a therapeutic substance through at least one small gauge hollow needle having an outlet with an exposed height between 0 and 1 mm, said outlet being inserted into the skin to a depth of between .3 mm and 2 mm, such that delivery of the substance occurs at a depth between .3 mm and 2 mm, wherein the effective amount is less than that administered by subcutaneous injection to alleviate the same symptom.

65. A method of treating a symptom of a pathological condition, said method comprising injecting or infusing an effective amount of a therapeutic substance intradermally through one or more microneedles having a length and outlet suitable for selectively delivering the substance into the dermis to obtain absorption of the substance in the dermis wherein the effective amount is less than that administered by subcutaneous injection to alleviate the same symptom.

66. A method of treating a symptom of a pathological condition, said method comprising administering an effective amount of a pharmaceutical substance by injecting or infusing the substance intradermally through one or more microneedles having a length and outlet suitable for selectively delivering the substance into the dermis to obtain absorption of the substance in the dermis, wherein the effective amount is less than that administered by subcutaneous injection to alleviate the same symptom.

67. A method for of treating a symptom of a pathological condition by delivering an effective amount of a bioactive substance a subject, said method comprising :
    a) contacting the skin of the subject with a device having a dermal-access means for accurately targeting the dermal space of the subject with an efficacious amount of the bioactive substance; and
    b) delivering said substance to the dermal space;
    wherein the effective amount is less than that administered by subcutaneous injection to alleviate the same symptom.

68. A method for of treating a symptom of a pathological condition by delivering an effective amount of a bioactive substance a subject, said method comprising :
    a) contacting the skin of a subject with a device having a dermal-access means for accurately targeting the dermal space of the subject; and
    b) delivering an efficacious amount of the bioactive substance at a rate of 1 nL/min. to 200 mL/min;
    wherein the effective amount is less than that administered by subcutaneous injection to alleviate the same symptom.